

TAXONOMIC AND NOMENCLATORIAL NOTES ON
RHUS INTEGRIFOLIA AND RHUS OVATA
(ANACARDIACEAE)

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Considerable confusion has existed during the past 150 years concerning the correct names and authorities for *Rhus integrifolia* and *Rhus ovata*. This paper is intended as a review of the names that have been applied to these taxa, with the hope of clarifying the situation.

Thomas Nuttall, in Torrey and Gray's (1838) *Flora of North America*, described two new species from southern California: *Styphonia integrifolia* and *Styphonia serrata*. The name *S. integrifolia* was applied to entire-leaved specimens and *S. serrata* to specimens with leaves irregularly repand-serrate. These names persisted in the literature for a number of years (Bentham, 1844; Torrey and Gray, 1856; Nuttall, 1859). Torrey and Gray (1856) included a drawing of *S. serrata* and suggested that it was probably not a distinct species. However, from their collection data and drawing, it is clear that their usage of *S. integrifolia* and *S. serrata* was, in part, based on the yet undescribed *Rhus ovata* S. Wats.

Bentham and Hooker (1862) reduced *Styphonia* to a section of *Rhus*; however, they did not make the combination *Rhus integrifolia*. The combination *Rhus integrifolia* was first published by Brewer and Watson (1876), although they attributed the name to Bentham and Hooker. Brewer and Watson, based on specimens collected by Palmer and Wheeler, included western Arizona as part of the range of *R. integrifolia*. I have seen some of those specimens (*Palmer 36, MO! GH!*), and they proved to be *Rhus ovata*. Again, the name *Rhus integrifolia* was, in part, misapplied. Rothrock (1878) also made the combination *Rhus integrifolia* and he too attributed the name to Bentham and Hooker. Rothrock's *Rhus integrifolia* has been cited by many authors (Barkley, 1937; Shreve and Wiggins, 1964; Raven and Thompson, 1966; Thorne, 1967) as being the first usage of this combination, even though Brewer and Watson preceded Rothrock by two years. Apparently, only Greene (1888) was aware of Brewer and Watson's combination. However, Rothrock based his circumscription of *R. integrifolia* in part on specimens (which he had not seen) collected from Arizona, an area where *R. integrifolia* does not occur. Rothrock's description and knowledge that the specimens (none was cited) were collected in Arizona indicate that he was probably referring to *Rhus ovata*.

The name *Rhus integrifolia*, with an assortment of authorities, appeared in the literature a number of times from 1878 to 1883, and most authors recognized that *Styphonia serrata* was not a distinct species, since entire and serrate leaves can occur on a single bush of *R. integri-*

folia. However, Engler (1883) recognized *Rhus integrifolia*, *R. integrifolia* var. *serrata*, and *R. hindsiana* citing himself as author in all three cases. Engler's *R. integrifolia* included that of Torrey and Gray (1856) and his description (p. 388) was based in part on *R. ovata*. Because of this and noting that a specimen from Baja California (*Hinds s.n.*, K!), which is actually *R. integrifolia* was so different, Engler named it *Rhus hindsiana*. Engler, apparently feeling that specimens of *R. integrifolia* with serrate leaves should be formally recognized, also created *R. integrifolia* var. *serrata* (*Lobb s.n.*, K!). Fortunately, it has not been recognized since. Finally, Watson (1885) recognized and named *Rhus ovata* as a separate entity from *R. integrifolia*, although his description of it as having yellow petals was erroneous and probably due to his use of dried herbarium specimens.

Barkley (1937) described *Rhus ovata* var. *traskiae* (*Trask s.n.*, MO!) and *Rhus integrifolia* var. *cedrosensis* (*Rose 16134*, NY!). Munz (1959) included *R. ovata* var. *traskiae* as a synonym of *R. ovata*. *Rhus ovata* var. *traskiae* is clearly intermediate between *R. ovata* and *R. integrifolia* and is a hybrid between the two species (Young, 1974). *Rhus integrifolia* var. *cedrosensis* appears to be a hybrid between *R. integrifolia* and *Rhus lentii* Kellogg (Young, unpubl. data).

Both taxa have been placed in other genera by various authors. Kuntze (1891) transferred almost all of the then described species of *Rhus* to *Toxicodendron* (*T. integrifolium* and *T. hindsianum*), although he neglected to include the newly described *R. ovata*. *Rhus integrifolia* and *R. ovata* are clearly not members of *Toxicodendron*, at least in the modern concept of the latter genus (see Gillis, 1971). Shafer (1908), apparently feeling that Nuttall's *Styphonia* was distinct from *Rhus*, erected the genus *Neostyphonia*, indicating that *Styphonia* had been used in 1791 by Medicus for a genus of Lamiaceae. Shafer included only *N. integrifolia*; however, Abrams (1910) added *N. ovata*. Few authors have recognized *Neostyphonia* (Abrams, 1917; Millspaugh and Nuttall, 1923), and Barkley (1937), in his monograph of North American *Rhus*, placed *Neostyphonia* in synonymy with *Rhus*. It should be noted that Barkley indicated that *Styphonia* was a new section of *Rhus* citing himself as author. However, Bentham and Hooker (1862) clearly designated *Styphonia* as a section of *Rhus* and should be cited as the authorities for that usage. Later, Barkley (1940) elevated the subgenus *Schmaltzia* to the generic level, so that *R. integrifolia* and *R. ovata* became *Schmaltzia integrifolia* and *Schmaltzia ovata*. Brizicky (1963) has adequately discussed the fact that *Schmaltzia* is a *nomen provisorium* and that the valid name of *Schmaltzia*, if it is separated from *Rhus*, is *Lobadium*. Barkley (1965) later acknowledged this fact. I am currently investigating the Mexican species of *Rhus* subgenus *Lobadium* and at this time feel that there are insufficient data available to warrant the removal of *Lobadium* from *Rhus*.

The following lists of synonymies for *R. integrifolia* and *R. ovata* are presented to summarize and further clarify the nomenclatural situation concerning these two taxa.

RHUS INTEGRIFOLIA (Nutt. in T. & G.) Brewer & Watson, Bot. of Calif. 1:110. 1876.—*Styphonia integrifolia* Nutt. in T. & G., Flora N. Amer. 1:220. 1838.—*Toxicodendron integrifolium* (Nutt. in T. & G.) Kuntze, Rev. Gen. Pl. 1:154. 1891.—*Neostyphonia integrifolia* (Nutt. in T. & G.) Shafer in Britt., N. Amer. Trees. 612. 1907.—*Schmaltzia integrifolia* (Nutt. in T. & G.) Barkley, Amer. Midl. Naturalist 24:650. 1940.—TYPE: San Diego, *Nuttall s.n.* (BM!, photo RSA!). Barkley (1937) indicated that the type of *R. integrifolia* was at GH. However, as recently discussed by Rollins (1972), most of Nuttall's herbarium is located at BM, and the specimens there were not examined by Barkley. The specimen at GH, marked as the type of *R. integrifolia* by Barkley, is at best an isotype. Although Brewer and Watson included *R. ovata* as part of their *R. integrifolia*, they did list *Styphonia integrifolia* as a synonym for their name, so that their *R. integrifolia* was based on the *S. integrifolia* of Nuttall. In accordance with Recommendation 46C of the *International Code of Botanical Nomenclature* (Stafleu, 1972) I have elected not to include Bentham and Hooker as authorities in the citation of the combination *Rhus integrifolia*.

Styphonia serrata Nutt. in T. & G., Flora N. Amer. 1:220. 1838.—*Rhus integrifolia* var. *serrata* (Nutt. in T. & G.) Engler in DC., Monogr. Phaner. 4:388. 1883.—TYPE: San Diego, *Nuttall s.n.* (BM!). Since Engler's *R. integrifolia* var. *serrata* was based on Nuttall's *Styphonia serrata*, its type must be that of *S. serrata* at BM and not, as indicated by Engler, a specimen at K.

Rhus hindsiana Engler in DC., Monogr. Phaner. 4:388. 1884.—*Toxicodendron hindsianum* (Engler) Kuntze, Rev. Gen. Pl. 1:154. 1891.—TYPE: San Quentin, Baja California, Mexico, *Hinds s.n.* (K!).

RHUS OVATA Watson, Proc. Amer. Acad. Arts 20:358. 1885.—*Neostyphonia ovata* (Wats.) Abrams, Bull. New York Bot. Gard. 6:403. 1910.—*Schmaltzia ovata* (Wats.) Barkley, Amer. Midl. Naturalist 24:651. 1940.—TYPE: San Diego Mtns., *Orcutt s.n.*, May 1883 (GH!, photo RSA!).

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